being obvious over Kamb, in view of Chenchik and Cronin, for the asserted reason that Kamb teaches all of the elements of the claimed methods but for the use of gene specific primers, which element is assertedly made up by the supplemental references.

The claims as pending clearly recite the use of an array of tag complements immobilized on the surface of a planar solid support, i.e., where all of the tag complements are on the surface of the same planar solid support. As such, the claims exclude the use of beads as a solid support.

Upon review of the Kamb reference, Kamb is clearly directed to methods where a population of distinct beads is employed. The use of beads is **critical** to Kamb's method because Kamb teaches the use of FACS based detection protocol, and one could not practice Kamb's invention without a substrate that was a bead. As such, one could not practice Kamb's invention with a planar solid support, such as is found in an array having a planar substrate.

Since Kamb teaches a bead-based protocol that would not work with a planar solid support, Kamb neither teaches nor suggests the subject methods, where an element thereof is the use of a planar solid support.

Since the supplemental references have been cited solely for their teaching of the use of gene specific primers, they cannot make up for the above deficiency in Kamb.

As such, Claims 1-2, 5, 6, 11 and 12 are not obvious under 35 U.S.C. § 103(a) over Kamb, in view of Chenchik and Cronin and this rejection may be withdrawn.

Claims 3, 4 and 7-10 have been rejected under 35 U.S.C. § 103(a) as being obvious over Kamb, in view of Chenchik and Cronin, and further in view of Lockhart and Shannon. As explained above, the combined teaching of Kamb, in view of Chenchik and Cronin, fails to teach or suggest a method that employs a planar solid support. As

the supplemental references have been cited solely for the hybridization efficiency limitation, these references fail to make up the fundamental deficiency in the cited primary references. As such, Claims 3-4 and 7-10 are not obvious under 35 U.S.C. § 103(a) over Kamb, in view of Chenchik and Cronin further in view of Lockhart and Shannon, and this rejection may be withdrawn.

Claims 13, 15-19 and 21 have been rejected under 35 U.S.C. § 103(a) over Kamb, in view of Chenchik and Cronin, Lockhart and Shannon, and further in view of Brown. As explained above, the combined teaching of Kamb, in view of Chenchik and Cronin, fails to teach the basic method as claimed that requires the use of planar solid support. The supplemental references have been cited solely for the additional elements of the claim, e.g., hybridization efficiency limitation. As such, these references fail to make up the fundamental deficiency in Kamb, in view of Chenchik and Cronin. Accordingly, Claims 13, 15-19 and 21 are not obvious under 35 U.S.C. § 103(a) over Kamb, in view of Chenchik and Cronin and further in view of Lockhart, Shannon and Brown, and this rejection may be withdrawn.

Finally, Claims 1-5, 7-13, 15-19 and 21 have been provisionally rejected under the judicially created doctrine of obviousness type double patenting as being unpatentable over Claims 1, 4-9, 13, 16, 18-22 and 24 of copending application serial no. 09/752,292. Solely in order to expedite allowance of the present application, enclosed please find a Terminal Disclaimer, in view of which this rejection may be withdrawn.

In view of the above amendments and remarks, this application is considered to be in good and proper form for allowance and the Examiner is respectfully requested to pass this application to issue.

If, in the opinion of the Examiner, a telephonic interview would expedite prosecution of this application, the Examiner is invited to contact the undersigned at (650) 833-7770.

If the Patent Office determines that fees, including extensions of time, are required, the Applicants hereby petition for any required relief, including extensions of time, and authorize the Commissioner to charge the cost of such to our Deposit Account No. 50-0815, Order No. CLON-017.

Respectfully Submitted,

BOZICEVIC, FIELD & FRANCIS LLP

Bret Field
Reg. No. 37,620

enc:

- Terminal Disclaimer over U.S. Application Serial No. 09/752,292

BOZICEVIC, FIELD & FRANCIS LLP
200 Middlefield Road, Suite 200
Palo Alto California 94025
Telephone: (650) 327-3400
Facsimile: (650) 327-3231
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Version With Markings To Show Changes Made

In the claims:

1. (Twice Amended) A hybridization assay comprising the steps of:

(a) generating a population of tagged target nucleic acids from an initial sample of nucleic acids with a collection of at least 20 tagged gene specific primers;

(b) contacting said population of tagged target nucleic acids with an array of tag complements immobilized on a planar surface of a solid support, wherein each member of said population of tagged target nucleic acids has a tag domain that is known to be a complement of a tag complement of said array; and

(c) detecting any resultant hybridization complexes on said array.

13. (Twice Amended) A kit for use in a hybridization assay, said kit comprising:

(a) an array of distinct tag complements immobilized on ~~the~~ a planar surface of a solid support;

(b) a set of at least about 20 distinct tagged gene specific primers, wherein each member of said set includes a tag domain that is known to be a complement of a tag complement of said array; and

(c) means for identifying the physical location on said array to which each distinct tagged gene specific primer hybridizes.

19. (Twice Amended) An array of distinct tag complements immobilized on a surface of a planar solid support, wherein said tag complements are members of a collection of tag-tag complement pairs in which the magnitude of any difference in hybridization efficiency between any two tag-tag complement pairs in said collection does not exceed about 10 fold, and at least one of said tag complements is hybridized to tagged target nucleic acid.